

WHAT IS CLAIMED IS:

1. An apparatus for displaying a three-dimensional image of an object to be displayed, through a superimposing of a plurality of images of said object, which are placed  
5 so as to be apart from each other on a line of sight of an observer, comprising:  
a plurality of display units disposed in tandem on said line of sight, each of said plurality of display units comprising at least one screen section for displaying at  
10 least one image of said plurality of images; and  
a display image control unit for displaying a screen section-adjustment image on each of said plurality of display units, to enable the three-dimensional image to be displayed, in case where the observer is placed in a predetermined  
15 observation position.
2. The apparatus as claimed in Claim 1, further comprising:  
a display mode control unit for making a change in a display mode for said screen section-adjustment image, which  
20 is displayed on at least one display unit of said plurality of display units; and  
an input unit for enabling instructions on change in said display mode to be inputted into said display mode control unit.
- 25 3. The apparatus as claimed in Claim 2, wherein:

said input unit comprises an external input device through which an external input operation is to be carried out.

4.           The apparatus as claimed in Claim 2, wherein:  
5           said display mode control unit is configured to enable  
          said at least one display unit to shift in a predetermined  
          direction; and  
          said input unit enables instructions to shift said at  
          least one display unit in said predetermined direction by  
10          a predetermined distance to be inputted into said input unit.
5.           The apparatus as claimed in Claim 2, wherein:  
          said display mode control unit is configured to enable  
          an apparent distance between adjacent two display units of  
          said plurality of display units to vary; and  
15          said input unit enables instructions to vary said  
          apparent distance to a predetermined distance to be inputted  
          into said input unit.
6.           The apparatus as claimed in Claim 2, wherein:  
          said display mode control unit is configured to enable  
20          said at least one screen section to shift on a plane, which  
          intersects said line of sight; and  
          said input unit enables instructions to shift said at  
          least one screen section by a predetermined distance to be  
          inputted into said input unit.
- 25   7.           The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable said at least one screen section to be scaled; and

said input unit enables instructions to scale said at least one screen section at a predetermined magnification  
5 to be inputted into said input unit.

8. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable brightness of at least one part of said at least one screen section to vary; and

10 said input unit enables instructions to vary the brightness of said at least one part to be inputted into said input unit.

9. The apparatus as claimed in Claim 2, wherein:

15 said display mode control unit is configured to enable chromaticity of at least one part of said at least one screen section to vary; and

said input unit enables instructions to vary the chromaticity of said at least one part to be inputted into said input unit.

20 10. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable distortion of at least one part of said at least one screen section to vary; and

25 said input unit enables instructions to vary the distortion of said at least one part to be inputted into

said input unit.

11. The apparatus as claimed in Claim 2, wherein:

said display mode control unit is configured to enable  
an inclination angle of at least one part of said at least  
5 one screen section to vary; and

said input unit enables instructions to vary the  
inclination angle of said at least one part to be inputted  
into said input unit.

12. The apparatus as claimed in Claim 6, wherein:

10 said display mode control unit applies a signal  
processing to an image signal supplied to said at least one  
display unit to make a change in the display mode for said  
screen section-adjustment image.

13. The apparatus as claimed in Claim 2, further comprising:

15 a record unit for recording state information on a  
predetermined state of said apparatus.

14. The apparatus as claimed in Claim 13, wherein:

said input unit enables any one of said state  
information to be selected and enables instructions to make  
20 a change in the display mode based on said any one as selected  
to be inputted into said input unit.

15. The apparatus as claimed in Claim 1, wherein:

of said plurality of display units, at least one display  
unit other than a display unit, which is disposed on a rear most

side in a viewing direction of said observer, comprises a translucent display device.

16. The apparatus as claimed in Claim 15, wherein:

said translucent display device comprises any one of  
5 a liquid crystal display device and an electroluminescent display device.

17. The apparatus as claimed in Claim 1, wherein:

said plurality of display units comprise at least one composite display unit, which is obtained thorough  
10 composition by means of a half mirror.

18. A method for displaying a three-dimensional image of an object to be displayed, through a superimposing of a plurality of images of said object, which are placed so as to be apart from each other on a line of sight of an observer,  
15 said method comprising:

an image signal generation step for generating a screen section-adjustment image, which enables the three-dimensional image to be displayed on each of a plurality of display units, in case where the observer is  
20 placed in a predetermined observation position; and

a display image control step for displaying said screen section-adjustment image, which has been generated by said image signal generation step, on said each of said plurality of display units.

25 19. The method as claimed in Claim 18, further comprising:

a display mode control step for making a change in a display mode for said screen section-adjustment image, which is displayed on at least one display unit of said plurality of display units; and

5           an input step for inputting instructions on change in said display mode.

20.       The method as claimed in Claim 19, further comprising:

          a record step for recording state information on a predetermined state of an apparatus for displaying the  
10       three-dimensional image.